

Page 56, line 23, delete “as claimed in claim 54 is”, and insert --in another aspect provides--.

Page 57, line 18, delete “as claimed in claim 55 is”, and insert --in another aspect provides--.

Page 58, line 26, delete “as claimed in claim 56 is”, and insert --in another aspect provides--.

Page 60, line 5, delete “as claimed in claim 57 is”, and insert --in another aspect provides--.

Page 61, line 23, delete “as claimed in claim 58 is”, and insert --in another aspect provides--.

Page 63, line 12, delete “as claimed in claim 59 is”, and insert --in another aspect provides--.

Page 66, line 4, delete “as claimed in claim 60 is”, and insert --in another aspect provides--.

**In the Claims:**

In claim 10, please delete “any one of claims 6-9”, and insert in its place --claim 6--.

In claim 14, please delete “any one of claims 10-13”, and insert in its place --claim 10--.

In claim 15, please delete “any one of claims 6-14”, and insert in its place --claim 6--

In claim 21, please delete “any one of claims 17-20”, and insert in its place --claim 17--

In claim 22, please delete “any one of claims 16-21”, and insert in its place --claim 16--

In claim 24, please delete “any one of claims 16-21”, and insert in its place --claim  
16--

In claim 25, please delete “any one of claims 1-24”, and insert in its place --claims 1,  
3, 4, 8, 9, 19 or 20--

In claim 35, please delete “any one of claims 31-34”, and insert in its place --claim  
31--

In claim 39, please delete “any one of claims 35-38”, and insert in its place --claim  
35--

In claim 40, please delete “any one of claims 31-39”, and insert in its place --claim  
31--

In claim 46, please delete “any one of claims 42-45”, and insert in its place --claim  
42--

In claim 47, please delete “any one of claims 41-46”, and insert in its place --claim  
41--

In claim 49, please delete “any one of claims 41-46”, and insert in its place --claim  
41--

In claim 50, please delete “any one of claims 26-49”, and insert in its place --claim  
26, 28, 33, 34, 44, or 45--

Please add the following claims 61-80:

--61. The data transmission method as claimed in claim 8 or 9, further comprising  
the step of:

at the transmitting side,

calculating transmission rate information indicating the number of bits of the transmitted data, frame by frame,

wherein said step of generating the frame data generates the frame data containing the calculated transmission rate information, and

at the receiving side,

wherein both said step of conducting the error-correcting decoding and said step of calculating the error-detecting code assume the final bit position of the frame data on the basis of the transmission rate information in the received frame data.

62. The data transmission method as claimed in claim 61, wherein at the transmitting side, said step of conducting the error-correcting coding conducts, for the transmission rate information, independent error-correcting coding that is separate from the error-correcting coding for the transmitted data, the error-detecting code, and the tail bit.

63. The data transmission method as claimed in claim 62, wherein at the transmitting side, said step of conducting the error-correcting coding conducts the error-correcting coding of the transmission rate information by using a block code.

64. The data transmission method as claimed in claim 61, wherein at the transmitting side, said step of conducting the error-correcting coding conducts the error-correcting coding of all of the transmission rate information, the transmitted data, the error-detecting code, and the tail bit collectively with a convolutional code.

65. The data transmission method as claimed in claim 61, wherein at the receiving side, if said step of deciding does not decide that the final bit position of the frame data assumed on the basis of the transmission rate information in the received frame data is the final bit position of the frame data, both said step of conducting the error-correcting decoding and said step of

calculating the error-detecting code assume a position other than the final bit position of the frame data assumed on the basis of the transmission rate information in the received frame data as the final bit position of the frame data.

66. The data transmission method as claimed in claim 8 or 9, wherein at the receiving side, if among the assumed final bit positions of the frame data exist a plurality of positions where the obtained likelihood difference is within the predetermined range and the assumed error-detecting code agrees with the error-detecting code calculated on the basis of the assumed transmitted data, said step of deciding decides that a position where the obtained likelihood difference becomes the minimum is the final bit position of the frame data.

67. The data transmission method as claimed in claim 19 or 20, wherein at the receiving side, if among the assumed final bit positions of the frame data exist a plurality of positions where the obtained likelihood difference is within the predetermined range and at the same time the assumed error-detecting code agrees with the error-detecting code calculated on the basis of the assumed transmitted data, said step of deciding decides that a position where the obtained likelihood difference becomes the minimum is the final bit position of the frame data.

68. The data transmission method as claimed in claim 19 or 20, wherein at the transmitting side, said step of conducting the error-correcting coding conducts, for the transmission rate information, independent error-correcting coding that is separate from the error-correcting coding for the transmitted data, the error-detecting code, and the tail bit.

69. The data transmission method as claimed in claim 68, wherein at the transmitting side, said step of conducting the error-correcting coding conducts the error-correcting coding of the transmission rate information by using a block code.

70. The data transmission method as claimed in claim 19 or 20, wherein at the transmitting side, said step of conducting the error-correcting coding conducts the error-correcting coding of all of the transmission rate information, the transmitted data, the error-detecting code, and the tail bit collectively with a convolutional code.

71. The data transmission system as claimed in claim 33 or 34, further comprising:

in the transmitter,

means for calculating transmission rate information indicating the number of bits of the transmitted data, frame by frame,

wherein said means for generating the frame data generates the frame data containing the calculated transmission rate information, and

in the receiver,

wherein both said means for conducting the error-correcting decoding and said means for calculating the error-detecting code assume the final bit position of the frame data on the basis of the transmission rate information in the received frame data.

72. The data transmission system as claimed in claim 71, wherein in the transmitter, said means for conducting the error-correcting coding conducts, for the transmission rate information, independent error-correcting coding that is separate from the error-correcting coding for the transmitted data, the error-detecting code, and the tail bit.

73. The data transmission system claimed in claim 72, wherein in the transmitter, said means for conducting the error-correcting coding conducts the error-correcting coding of the transmission rate information by using a block code.

74. The data transmission system as claimed in claim 71, wherein in the transmitter, said means for conducting the error-correcting coding conducts the error-correcting coding of all of

the transmission rate information, the transmitted data, the error-detecting code, and the tail bit collectively with a convolutional code.

75. The data transmission system as claimed in claim 71, wherein in the receiver, if said means for deciding does not decide that the final bit position of the frame data assumed on the basis of the transmission rate information in the received frame data is the final bit position of the frame data, both said means for conducting the error-correcting decoding and said means for calculating the error-detecting code assume a position other than the final bit position of the frame data assumed on the basis of the transmission rate information in the received frame data as the final bit position of the frame data.

76. The data transmission system as claimed in claim 33 or 34, wherein in the receiver, if among the assumed final bit positions of the frame data exist a plurality of positions where the obtained likelihood difference is within the predetermined range and the assumed error-detecting code agrees with the error-detecting code calculated on the basis of the assumed transmitted data, said means for deciding decides that a position where the obtained likelihood difference becomes the minimum is the final bit position of the frame data.

77. The data transmission system as claimed in claim 44 or 45, wherein in the receiver, if among the assumed final bit positions of the frame data exist a plurality of positions where the obtained likelihood difference is within the predetermined range and the assumed error-detecting code agrees with the error-detecting code calculated on the basis of the assumed transmitted data, said means for deciding decides that a position where the obtained likelihood difference becomes the minimum is the final bit position of the frame data.

78. The data transmission system as claimed in claim 44 or 45, wherein in the transmitter, said means for conducting the error-correcting coding conducts, for the transmission

rate information, independent error-correcting coding that is separate from the error-correcting coding for the transmitted data, the error-correcting code, and the tail bit.

79. The data transmission system claimed in claim 78, wherein in the transmitter, said means for conducting the error-correcting coding conducts the error-correcting coding of the transmission rate information by using a block code.

80. The data transmission system as claimed in claim 44 or 45, wherein in the transmitter, said means for conducting the error-correcting coding conducts the error-correcting coding of all of the transmission rate information, the transmitted data, the error-detecting code, and the tail bit collectively with a convolutional code. --

Respectfully submitted,

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